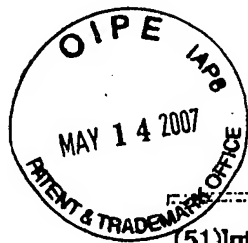


Cited Reference 2



## PATENT ABSTRACTS OF JAPAN

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### (54) MANUFACTURE OF SUPERCONDUCTIVE COIL

#### (57)Abstract:

**PURPOSE:** To obtain a superconductive coil which can be operated at temperatures higher than conventional ones by forming a continuous rail consisting of a superconductive material on a substrate, making the rail to be a continuous rail consisting of an oxide superconductive layer by thermally treating by sintering, and making a coil by stacking the substrates.

**CONSTITUTION:** By using a superconductive material which consists either of powder so mixed as to produce an oxide superconductor by means of thermal treatment or of oxide powder already having superconductivity, a multiwound continuous rail is formed on a substrate 8. By thermally treating the substrate 8 whereupon the continuous rail is formed, the said superconductive material is sintered to form an oxide superconductive layer 6.

By depositing a normal conductor on the superconductive layer 6, a coil unit material 10 is obtained, wherein the continuous rail consists of the superconductive layer 6 having the normal conductive layer 7 on the substrate 8. Then, the coil unit material 10 is stacked, and the superconductive layer 6 and the normal conductive layer 7 of each coil unit material 10 are electrically connected individually. The said substrate 8 is, for example, a metal disc whose surface is coated by a high resistance layer.

